

IN THE CLAIMS

Please accept the following set of claims in the application with the status of each claim shown explicitly, including the cancellation of claims 1-19, and new claims 20-38 added.

CLAIMS OF 09/836,497 WITH THE STATUS OF ALL CLAIM SHOWN,**CANCELLATION OF CLAIMS 1-19, AND NEW CLAIMS 20-38 ADDED**

1.-19. (Cancelled)

20. (New) A bioreactor for processing a reagent, said bioreactor comprising:

a sheet of material having a surface and defining a flow pathway, said sheet of material being formed into a spiral made of sequential turns, said flow pathway having a beginning and an opposing end and a spacing between sequential turns of said spiral, wherein said spacing is at least 1/8th inch;

reactant particles, said reactant particles selected to react with a reagent and become polarized as a result;

a feedstock; and

means for flowing said reactant particles, said feedstock, and said reagent through said flow pathway from said beginning to said end, said reactant particles and said reagents reacting when said reactant particles and said reagents flow along said flow pathway with said feedstock, upon which reacting and becoming polarized as a result, said reactant particles generate an energy potential difference between said beginning of said flow pathway and said end and attach directly to said surface.

21. (New) The bioreactor as recited in claim 20, wherein said reactant particles are made of a biocatalyst.

22. (New) The bioreactor as recited in claim 20, wherein said reactant particles are made of a aerobic biocatalyst.

23. (New) The bioreactor as recited in claim 20, wherein said reactant particles are selected from the group consisting of enzymes, bacteria, organelles, yeasts, leucocytes, hemocytes and fungi.

24. (New) The bioreactor as recited in claim 20, wherein said feedstock selected from the group consisting of air and water.

25. (New) The bioreactor as recited in claim 20, wherein said feedstock includes said reagent.

26. (New) The bioreactor as recited in claim 20, wherein said reactant particles are bacteria and said reagent is an oxidizing agent.

27. (New) The bioreactor as recited in claim 20, wherein said reactant particles are aerobic bacteria and said reagent is oxygen.

28. (New) The bioreactor as recited in claim 20, wherein said reactant particles are activated sludge.

29. (New) A method for processing a reagent, said method comprising the steps of: providing a sheet of material formed into a spiral having sequential turns, said spiral defining a flow pathway having a beginning and an opposing end and a spacing of at least 1/8th inch between said sequential turns;

feeding a feedstock and a reagent into said flow pathway at said beginning; and

feeding reactant particles known to react with said reagent and become polarized as a result into said flow pathway at said beginning, whereby said reactant particles react with said reagent as said reactant particles and said reagent flow along said flow pathway from said beginning to said end, become polarized and generate thereby an energy potential difference between said beginning of said flow pathway and said end whereby said reactant particles attach directly on said sheet of material.

30. (New) The method of claim 29, wherein said sheet of material has a surface and wherein said reactant particles and said reagent are fed into said bioreactor until said surface is coated with plural layers of said reactant particles.

31. (New) The method as recited in claim 29, wherein said reactant particles are made of a biocatalyst.

32. (New) The method as recited in claim 29, wherein said reactant particles are made of a aerobic biocatalyst.

33. (New) The method as recited in claim 29, wherein said reactant particles are selected from the group consisting of enzymes, bacteria, organelles, yeasts, leucocytes, hemocytes and fungi.

34. (New) The method as recited in claim 29, wherein said feedstock is aqueous.

35. (New) The method as recited in claim 29, wherein said feedstock includes said reagent.

36. (New) The method as recited in claim 29, wherein said reactant particles are bacteria and said reagent is an oxidizing agent.

37. (New) The method as recited in claim 29, wherein said reactant particles are aerobic bacteria and said reagent is oxygen.

38. (New) The method as recited in claim 29, wherein said reactant particles are activated sludge.